

scruple doses of bicarbonate of potash, every two hours, day and night, until the patient has been free from all articular affection and febrile disturbance for two or three days, using local depletion over the heart's region, if any cardiac disease is present or threatened. The author then detailed three cases of rheumatic fever, illustrating this mode of treatment: The first, a girl, 10 years old, in which the duration under treatment was five days, the total duration eight; the second, a young man, aged 20, with a complication of heart disease, where the duration under treatment was eight, the total duration fifteen days; the third, a young woman, aged 18 years, in the fifth attack, the former ones having always lasted for a month or five weeks, but which, by the adoption of this plan, yielded in nine days; total duration being but thirteen days, four having elapsed before her admission into the hospital. He afterwards gave a table of fifty-one cases of acute rheumatism; and of each patient the following particulars are noted: The age, occupation, hereditary predisposition; the number and causes of attack; the symptoms before admission; the symptoms during treatment; the nature of treatment; and the duration of the disease. From these cases, the following deductions are made, viz: that in twenty males the duration of the disease under treatment averaged between six and seven days, and the total duration between eleven and twelve days; and, in thirty-one females, the disease under treatment averaged from seven to eight days, and the total duration between fifteen and sixteen days—giving, in all, an average under treatment of seven days and a-half; and, for the total duration, about thirteen days and a-half. The author then alluded to the influence of the bicarbonate of potash, when administered in large and frequent doses, upon the different organs and functions of the body; and remarked, that it produces neither nausea, vomiting, nor purging; in fact, no symptom of gastro-intestinal irritation. It now induces a strongly alkaline condition of the urine, causes it to effervesce freely, with excess of acid, but does not appear to promote an increase in the quantity of the secretion. It appears to render the secretion of the skin less acid, sometimes almost neutral. That it acts as a powerful controller of the heart's action, reducing greatly the frequency of the pulse, but without causing the faintness often produced by digitalis, colchicum, etc. That it probably increases the alkalinity of the serum of the blood, and diminishes the coagulability of the altered fibrin occurring in rheumatic fever; and hence, probably, checking or preventing the deposits of lymph on the endo- or peri-cardium. He (Dr. Garrod) stated his opinion, that the influence of the bicarbonate was felt not only in shortening the duration of the articular affection, but also in preventing or moderating the cardiac disease. After enumerating many details of the method adopted, and the value of certain adjuncts, as opium, calomel, and occasional general depletion, he proceeded to recommend a plan of treatment which, from his experience, he considered calculated to insure the greatest amount of success, and thought it probable that the total duration of the disease might, on the average, be reduced to about ten days, provided that the treatment was adopted early, and no serious complication existed.—*Med. Times and Gaz.*, 3d March, 1855.

26. *New Method of Treating Neuralgia by the direct application of Opiates to the Painful Points.*—Dr. ALEX. WOOD, in an interesting paper in the *Edinburgh Medical and Surgical Journal*, for April last, expresses his conviction that "An immense improvement was effected in our treatment of neuralgic affections, when M. Valleix directed attention to the fact, that while, on the one hand, the superficial nerves of the body are of all others the ones most commonly affected with this disease, there are some points of their course in which it is much more liable to be seated than in others, although in these, no structural alterations can be discovered to account for this liability. These points are usually more or less morbidly sensible to pressure, even in the intervals between the attacks of the sharp lancing intermittent pain. A very slight touch in these situations is often sufficient to excite acute suffering; in other cases, however, even firm pressure is borne without any complaint. The points in the course of any nerve which are thus liable to be the seat of tenderness are, according to Valleix:—

"1. The place of emergence of the nervous trunk.

"2. The point where a nervous twig traverses the muscles to ramify on the integuments.

"3. The point where the terminal branches of a nerve expand in the integuments.

"4. The point where nervous trunks become superficial during their course.

"It is perhaps scarcely necessary to remark that all these points are precisely those where the nerve tends towards the surface, and therefore where, of course, it is the most amenable to local treatment.

"Acting on the result of this observation, M. Valleix introduced a plan of treatment which, as an external remedy, I have largely employed ever since my attention was first directed to his work in 1842.

"It consists in the application of a succession of small blisters *over the points* in the course of the nerves which are painful on pressure. Valleix does not recommend, as a general rule, the application of morphia endermically, but suggests that it may be attempted with advantage in some cases. I have almost invariably employed an ointment containing morphia to dress the blistered surface, and have been accustomed to ascribe much of the benefit of the treatment to this. In some cases, I have seen relief follow the application of an ointment containing strychnine to the blistered surface; but this must be used with great caution, as very disagreeable results often ensue from its use.

"It has frequently occurred to me, however, that a more direct application of the narcotic to the affected nerve, or to its immediate neighbourhood, would be attended with corresponding advantage, and as the painful points so frequently correspond with those in which the nerve becomes superficial, I thought this might perhaps be accomplished. In pursuit of this object, I have made several attempts to introduce morphia directly by means of acupuncture needles and otherwise, but without success.

"Having occasion, however, about the end of 1853, to endeavour to remove a *nævus* by injection with the acid solution of perchloride of iron, I procured one of the elegant little syringes, constructed for this purpose by Mr. Ferguson, of Giltspur Street, London. While using this instrument for the *nævus*, it occurred to me that it might supply the means of bringing some narcotic to bear more directly than I had hitherto been able to accomplish on the affected nerve in neuralgia. I resolved to make the attempt, and did not long lack opportunity.

"Miss —, an old lady, who had laboured long under gastric and nervous symptoms, had suffered severely for four days from cervico-brachial neuralgia. This lady had the idiosyncrasy of not being able to take opium. Of this she had warned me many years before, when she first came under my care, and I consequently never prescribed it for her; however, once, when she was seen with me by the late Dr. J. H. Davidson, he, disbelieving her former experience, prescribed opium, with the effect of bringing on a severe fainting fit.

"The narration of her case may date from November 26th. She had not been able to sleep for the three previous nights from the violence of the neuralgic pain, and was quite exhausted with severe suffering. The usual internal remedies, with the exception of opium, had been tried, but without the least alleviation of her agony. Under these circumstances, I resolved to put in practice the plan which I had so long revolved in my mind.

"Accordingly, on November 28th, I visited her at 10 P. M. to give the opiate the benefit of the night. Having ascertained that the most tender spot was the post-clavicular point of Valleix, I inserted the syringe within the angle formed by the clavicle and acromion, and injected twenty drops of a solution of muriate of morphia, of a strength about double that of the official preparation.

"In about ten minutes after the withdrawal of the syringe, the patient began to complain of giddiness and confusion of ideas; in half an hour the pain had subsided, and I left her in the anticipation of a refreshing sleep.

"I visited her again about 11 A. M. on the 29th; was a little annoyed to find that she had never wakened; the breathing also was somewhat deep, and she was roused with difficulty. Under the use of somewhat energetic stimuli,

however, these symptoms disappeared, and from that time to this the neuralgia has not returned."

Dr. Wood relates several other cases in which he resorted to this method of treatment with advantage. He has satisfied himself, however, that in those not unfrequent cases where the disease has a central, not a centripetal origin, it is quite useless.

The following are the conclusions at which Dr. Wood has arrived from his experience with this mode of treatment.

"1st. That narcotics injected into the neighbourhood of the painful point of a nerve affected with neuralgia, will diminish the sensibility of that nerve, and in proportion diminish or remove pain.

"2d. That the effect of narcotics so applied are not confined to their local action, but that they reach the brain through the venous circulation, and there produce their remote effects.

"3d. That in all probability what is true in regard to narcotics would be found to be equally true in regard to other classes of remedies.

"4th. That the small syringe affords a safe, easy, and almost painless method of exhibition.

"5th. That, destitute as we are of any precise experiments as to the applicability of cellular tissue as a medium for the reception of medicinal agents, the experiments made with the syringe show that it seems to offer an excellent surface for the absorbent action of the venous system.

"6th. That the method now detailed seems as extensively applicable as any of the methods of applying remedies to the skin, whether enepidermic, iatralleptic, endermic, or by inoculation."

27. *Treatment of Cholera in the Stage of Collapse, by the Artificial Production of Peritoneal or Cellular Dropsy.* By BENJ. W. RICHARDSON, M.D.—We extract the following remarks on this subject from a paper in the *Association Medical Journal*:—

"The more I have considered the matter, the more thoroughly have I been confirmed in favour of the now generally received opinions, that the symptoms of collapse are due to the loss of fluid which the body has sustained; that the poison of cholera, like a dose of a violent purgative, has a limit to its action on the body; and that if a patient can sustain the loss caused by the dose of the poison he has received, or if he can be sustained artificially from that loss, his recovery is to a great degree secured.

"A rapid removal of fluid must not always be considered in regard to quantity, because all physiological learning goes to prove that a certain balance between the densities of arterial and of venous blood must be kept up, to secure for the system many processes upon which its existence directly depends.

"Now, in cholera, as the serous loss must be derived mainly from the arterial circuit, it is obvious that a very few copious discharges from the stomach or intestines lead quickly to the destruction of the balance that ought to exist, speedily arrest the course of the circulation, and of necessity interfere with the respiratory process, the generation of animal heat, the function of the nervous system, so far as they depend on the blood, and with every other process which we consider essentially vital. . . . Now, in observing a patient in the collapsed state of cholera, . . . one sees at once why so much of incessant failure attends many of those remedial measures which are commonly adopted.

"Thus we see that the application of external warmth over and above the natural animal temperature, and for the purpose of increasing the heat of the patient, is a proceeding at once useless and unphilosophical; since the body does not absorb caloric from without, but makes it from within, and diffuses it externally. And, as the coldness of cholera arises solely from the fact that the internal chemical process, by which heat is produced, is arrested, it is obvious that the only means by which a new supply of heat can be obtained, will be by endeavouring to rekindle the natural calorifying influence. It is of course strictly physiological to surround the body of a cholera patient with a temperature somewhat above the ordinary point of animal heat, or by a non-conducting material; for this is a conservative step, tending to retain such small amount